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TITLE: Process for the preparation of fluorinated polyethers.

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ABSTRACT:

The invention relates to a process for the preparation of fluorinated polyethers of the formula I  $\text{Rf-O-(C}_2\text{F}_4\text{)-(C}_2\text{F}_4\text{)-O-Rf}$  (I> in which Rf is a straight-chain, branched or cyclic fluoroalkyl radical or fluoroalkyl ether radical and the two (C<sub>2</sub>F<sub>4</sub>) groups independently of one another have the structure (CF<sub>2</sub>-CF<sub>2</sub>) or (CF(CF<sub>3</sub>)), starting with a fluorovinyl ether of the formula II  $\text{Rf-O-CF=CF}_2$  (II> in which Rf has the same meaning as in formula I. The fluorovinyl ether (II), which is in liquid form or dissolved in an inert

solvent, is reacted with gaseous elementary fluorine which is employed in undiluted form or diluted with an inert gas, at a temperature of -80 to 200 DEG C.